

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference MBZ-0502	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/EP 03/09718	International filing date (day/month/year) 02/09/2003	(Earliest) Priority Date (day/month/year) 13/09/2002
Applicant CONSTRUCTION RESEARCH & TECHNOLOGY GMBH		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

METHOD AND COMPOSITION FOR REDUCING WEAR IN A CUTTING HEAD OF A TUNNEL BORING MACHINE

5. With regard to the abstract,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP 03/09718

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 E21D9/06 C09K7/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 E21D C09K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 18330 A (ELLENBERGER PETER ;MBT HOLDING AG (CH)) 15 April 1999 (1999-04-15) page 1, line 19 - line 27; claims 1-6 Discloses the alternatives of bentonite and polyethylene oxide	1-6
X	WO 01 12952 A (ELLENBERGER PETER ;MBT HOLDING AG (CH)) 22 February 2001 (2001-02-22) claims 1-9 Discloses the alternative of polyethylene oxide	1-6
X	US 6 287 052 B1 (HOFMANN PAUL ET AL) 11 September 2001 (2001-09-11) column 4, line 24 -column 5, line 1 Discloses the alternative of bentonite	1-6
	-/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

20 February 2004

Date of mailing of the international search report

27/02/2004

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Tompouloglou, C

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/09718

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 443 305 A (HEIERLI WERNER ET AL) 22 August 1995 (1995-08-22) column 1, line 31 -column 2, line 41 column 7, line 60 -column 8, line 15 Discloses the alternative of bentonite -----	1-6

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/ 03/09718

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9918330	A	15-04-1999	AU 742880 B2 AU 9540998 A BR 9812611 A CN 1272901 T WO 9918330 A1 EP 1027528 A1 JP 2001519495 T US 6485233 B1	17-01-2002 27-04-1999 01-08-2000 08-11-2000 15-04-1999 16-08-2000 23-10-2001 26-11-2002
WO 0112952	A	22-02-2001	AU 6152800 A BR 0013234 A CN 1369033 T WO 0112952 A1 EP 1210504 A1 JP 2003507604 T TW 477858 B	13-03-2001 23-04-2002 11-09-2002 22-02-2001 05-06-2002 25-02-2003 01-03-2002
US 6287052	B1	11-09-2001	FR 2728298 A1 AT 175470 T AU 4393396 A CN 1169766 A , B DE 69507163 D1 DE 69507163 T2 DK 796387 T3 EP 0796387 A1 ES 2129892 T3 WO 9618802 A1 GR 3029891 T3 JP 10511155 T	21-06-1996 15-01-1999 03-07-1996 07-01-1998 18-02-1999 26-08-1999 30-08-1999 24-09-1997 16-06-1999 20-06-1996 30-07-1999 27-10-1998
US 5443305	A	22-08-1995	CH 683861 A5 WO 9309333 A1 EP 0564615 A1	31-05-1994 13-05-1993 13-10-1993